

----- ST REPORT ONLINE MAGAZINE -----
"The Original 16/32bit Online Magazine"

from
STR Publishing Inc.
"

December 07, 1990

No.6.49

STReport Online Magazineâ €
Post Office Box 6672
Jacksonville, Florida
32205 ~ 6672

R.F. Mariano
Publisher - Editor

Voice: 904-783-3319 10 AM - 4 PM EST
BBS: 904-786-4176 USR/HST DUAL STANDARD
FAX: 904-783-3319 12 AM - 6 AM EST

** Fnet Node 350 * FidoNet Node 1:112/35 * NeST Node 90:03/0 **
STR'S privately owned & operated support BBS
carries ALL issues of STReport Online Magazine
and
AN INTERNATIONAL LIST OF PRIVATE BBS SYSTEMS
carrying STReport Online Magazine for their user's enjoyment

> 12/07/90: STReportâ € #6.49 The Original 16/32 bit Online Magazine!

- The Editor's Desk - CPU REPORT - JOPPA FAX
- SIMM Upgrades - After the ST - TT030 Overview
- Duggan's Goodies - PHOTONICS - PORTFOLIO NEWS
- DJ Boy Review - TURBO EXPRESS - STR Confidential

* DELUXE PAINT CONFERENCE *
* NEW PRODUCTS PARADE *
* UK COMPUTER FAIRE *

=====

ST REPORT ONLINE MAGAZINEâ €
The _Number One_ Online Magazine
-* FEATURING *-

"Accurate UP-TO-DATE News and Information"
Current Events, Original Articles, Hot Tips, and Information
Hardware - Software - Corporate - R & D - Imports

=====

STReport's support BBS, NODE # 350 invites systems using Forem ST and Turbo Board BBS to participate in the Fido/F-Net Mail Network. Or, call Node 350 direct at 904-786-4176, and enjoy the excitement of exchanging information relative to the Atari ST computer arena through an excellent International ST Mail Network. All registered F-NET - Crossnet SysOps are welcome to join the STReport Crossnet Conference. The Crossnet Conference Code is #34813, and the "Lead Node" is # 350. All systems are most

welcome to actively participate. Support Atari Computers; Join Today!

=====

AVAILABLE EXCLUSIVELY ON: GENIE ~ CIS ~ DELPHI ~ BIX ~ FIDO ~ F-NET

=====

> The Editor's Podiumâ €

This issue has become rather large, mostly because of the many new products listed, the reviews and special articles submitted and of course, the Christmas "Source listings. Rather than carry on here, let's remember the time of it is and treat each other in the True Spirit of Christmas.

Atari is on the rebound, there's product in the pipeline, the Lynx and the Portfolio are doing well.... Things are looking up!

thanks for your strong support!

Ralph.....

NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE

FOR A LIMITED TIME ONLY

COMPUSERVE WILL PRESENT \$15.00 WORTH OF COMPLIMENTARY ONLINE TIME

to the Readers of;

STREPORT ONLINE MAGAZINEâ €

"The Original 16/32bit Online Magazine"

NEW USERS; SIGN UP TODAY!

CALL: 1-800-848-8199 .. Ask for operator 198

You will receive your complimentary time
and
be online in no time at all!

WHAT'S NEW IN THE ATARI FORUMS (Dec. 7)

NEW FILES IN VENDORS FORUM

The following new files are available from Double Click Software in their Library 13 of the Atari Vendors Forum (GO ATARIVEN):

DCMSTK.ARC - DC MOUSE STICK is a FREEWARE program that allows you to plug your joystick into joystick port 0 or 1 and use it just like the mouse!

DCSLK2.ARC - DC SLICK SHIFT v1.01 is a FREEWARE program that emulates the LEFT or RIGHT mouse button using any combination of modifier keys (CONTROL, ALTERNATE or SHIFTS).

NEW EXPOSE' DEMO

An updated version of the Expose' Demo, a new desk accessory program that will Load/View/Clip graphics, Load DEGAS, DEGAS compressed, IMG, GEM, MacPaint, Tiny, Neochrome(color->mono), Save in IMG or DEGAS format, and more, is now available in LIBRARY 6 of the Atari Vendors Forum (GO ATARIV-EN) under the filename EXPOSE.ARC (courtesy of MAXWELL CPU)

NEW PBASIC FOR PORTFOLIO

Version 3.0 of PBASIC for the Atari Portfolio is now available in the Atari Portfolio Forum (GO APORTFOLIO) under the filename PBAS30.ZIP. This version includes strings, more functions, help file for address book, and is faster.

NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE

> CPU REPORTâ ¢
=====

Issue # 94

by Michael Arthur

CPU INSIGHTSâ ¢
=====

OPTICAL COMPUTING: PHOTONICS, OPTOELECTRONICS, AND AT&T

AT&T, as well as several University research teams, have developed experimental "photonic" computers that utilize optical technology. With these devices promising to be many times faster than ordinary electronic computers, these developments have stirred up much discussion on both the capabilities of optical computing, and its role in the future of the microcomputer industry. In order to understand the potential of both photonics and optical computers, let us take a look at both the differences between photonics and electronics, and how optical computing is being developed.

In ordinary (or electronic) computers, streams of electrons are sent through transistors, which manipulate this flow in a network of "logic gates", which can perform mathematical operations. However, in AT&T's experimental optical computer, bursts of low-intensity lasers are directed towards a light modulating crystal, which acts as a switch. These bursts cause changes in the "switch", so they either become opaque (so they absorb light), or translucent, so they can reflect light.

Then, a second burst of lasers (of equal strength) are reflected off the switches, in order to determine which "state" they are in. If a laser that has been directed towards a switch is strongly reflected, then the switch is translucent, and the data bit which it represents is determined to be a binary number 1. If the laser which is reflected from the switch is relatively weak, then the switch is opaque, and the bit is 0. A series of these "weak/strong" switches can then be coordinated into logic gates, so they can perform mathematical operations.

This type of technology is known as photonics. Just as electronics uses electrons, photonics use the components of light (or photons), in its operations. Streams of photons (or light) are generated by either an LED or a VERY small laser, and are then transmitted to light modulating crystals, which are then coordinated into the logic gates which make up the chip.

There are several advantages to using optical technology for integrated circuitry, including:

- Speed. Since they are, in essence, what light is made up of, photons travel at the speed of light. Therefore, photonic technology would be a LOT faster than electronic technology. Resulting in MUCH faster computer circuits....

- More compact designs. Far less energy is needed for using beams of light for computing than electricity, since one would not need to pump as much energy into a photonic circuit in order to maintain it. This would also result in photonic devices generating much less heat, meaning that optical circuitry could be fitted more closely than normal electronic circuitry.

Also, while electrons are part of a category of particles called fermions (whose electrical charges repel one another), photons are part of a particle class known as bosons, which do not interfere with one another like fermions. The reason that wires are needed to transmit electrons (and electricity, for that matter) is because competing streams of fermions would otherwise distort each other so much that they couldn't get from Point A to Point B in any semblance of order. Since photons do not have this problem, large numbers of them can be transmitted close (or even through) each other without creating a problem.

This means that different streams of light can be sent next to each other simultaneously. Now, if each stream of light stood for a bit of data, then one could easily implement 64-bit, 128-bit, or even 256-bit microprocessors using photonics. And given that the state of the art in electronic microprocessors is 32-bit chips.... This type of method could also be used to implement vastly sophisticated neural networks or parallel processing systems, since each stream of light could be independently accessed by several photonic circuits.

This, and other benefits of photonics is one of the many reasons that Japanese companies have been quietly pumping millions of dollars into optical computing research. Also, it seems that the combination of photonics and holographic technology is being researched. Instead of transmitting light to a photodetecting crystal, some scientists are looking into directing a stream of light towards holograms, so as to create holographic images on certain points of a two-dimensional grid which would correspond to bits (or pages) of data. Called "Page-Oriented Holographic

Memory", this technology could be capable of storing a gigabyte of data on each storage unit. Also, using photonic technology to "read" this unit, one could access data at a rate fast enough to make memory for purely optical computing reasonably fast....

However, while the benefits of optical computing are many, implementing integrated circuitry that is fully based on photonics will take several years of development. In order to utilize the abilities of optical computing in the near future, an upcoming technology called optoelectronics is being developed, which combines the speed of optical technology with proven electronic circuitry.

In optoelectronics, light is transmitted via optical fibers to light-detecting crystals (or photodetectors), which then simply convert light into electrical impulses, which can be used by ordinary electronic devices. In essence, data is sent at the speed of light to each electronic circuit, which then processes the data at a normal rate. This method of interconnecting chips has great potential. For example, whole bus architectures could become networks of optical fiber, sending data at the speed of light for microchips to process. Resulting in that, instead of carrying only megabytes of data a second (like current bus architectures), optical buses could easily transmit a gigabyte (1024 megabytes) or more amounts of data a second....

Photonic technology, though, is only in its earliest stages of development. Currently, the accuracy of calculations done with completely photonic computers is low in comparison to that of modern electronic computers. Also, new design techniques must be developed in order to develop microchips which take full advantage of the capabilities inherent in photonic technology. However, optoelectronics, photonics, and other technologies used in optical computing will certainly become an integral part of future computer technology....

CPU Systems Roundup ¢
=====

JOPPA FAX 2400 BAUD FAX/MODEM FOR ATARI ST

Name: Chaz #3 @3111
Date: Thu Nov 22 01:54:21 1990

Joppa FAX! Modems

Currently we are selling 2 versions of the FAX/Modems, they are the Joppa FAX SF01 and Joppa FAX SF02. They both are a data modem with Send/FAX capabilities, and the software that we ship with them is 100% Atari ST/STe compatible. The following describes the modem and software features of our current 2 products.

Modem Features:

A full featured 2400/1200/300 bps auto-dial/auto-answer modem that plugs into the serial port of any computer or terminal. It features superior Hayes compatibility, and utilizes the latest digital signal

processing technology, adaptive equalization, and phoneline impedance matching to assure clean, fast transmission of data, even over noisy phone lines. It's packed with helpful convenience features to make communications easy, like:

- 8 Status lights
- Call progress tone detection
- High quality speaker for call monitoring, - A second phone jack
- Complete analog/digital powerup and loopback diagnostics.

It's made in the USA using advanced automated assembly and testing to meet the highest standards of quality and performance.

Software Features:

- Enables 4800/2400 bps (Joppa FAX SF01) or 9600/7200/4800/2400 bps (Joppa FAX SF02) Group III broadcast FAXes.
- Software will allow for faxing of ASCII text files, .IMG files, .PC3 files, .PI3 files and JFAX files. You can view IMG, DEGAS, and JFAX files.
- Context sensitive online help facility.
- You can schedule FAX transmissions when rates are less or send them immediately. You can also broadcast FAXes to one or several different locations.
- Automatically allows for creation of a cover page to each location.
- Transfer log that records the status of all FAX transmissions.
- Includes our own custom drivers for Pagestream 1.82 and Calamus 1.09N desktop publishing programs.

Suggested Retail: \$169.95 Joppa FAX SF01
 \$229.95 Joppa FAX SF01

To ALL existng owners of the Joppa FAX SF01 who wish to upgrade to the Joppa FAX SF02: Send us your modem, original disk, registration card (if you have not already done so), and \$45.00 to us and you will receive the 9600 bps SendFAX chip, along with version 1.2 of our software.

Some added features of our software from 1.0 include:

- Sorting of dialing directory.
- Automatic detection of which resolution the file was saved as.
- Automatic loading of all the pages that are to be FAXed in memory (providing you have extra memory available).
- Line impedance program to reduce line echo.

For those that wish to upgrade only to version 1.2 send us your original disk, registration card (if you have not already done so) along with \$1 and we will update your existing software to v1.2.

Joppa Software Development
PO Box 226

Joppa, MD 21085
(301)676-2989 voice/FAX

Due to tremendous amount of request for the SOFTWARE only part of our product, we have decided to allow owners of existing Zoom/Generic 2400/4800 or Zoom/Generic 2400/9600 Modem/SendFAX's to purchase the software directly from us. These are the only modems that we are currently allowing this for. You MUST send us your modem to us as we modify it internally so that our software will work with it. The following options represents our current pricing:

- 1) Zoom/Generic 2400/4800 Sendfax to JoppaFAX SF-01 (4800) \$39.95
- 2) Zoom/Generic 2400/4800 Sendfax to JoppaFAX SF-02 (9600) \$69.95

Option 1 represents a software only version of the modem.

Option 2 represents software/hardware (new 9600 chip) of the modem.

Send us your modem only along with \$39.95 or \$69.95 (postage included) and we will return it to you with the software and manual.

Joppa Software Development
PO Box 226
Joppa, MD 21085
(301)676-2989 voice/FAX

:HOW TO GET YOUR OWN GENIE ACCOUNT:

To sign up for GENie service: Call: (with modem) 800-638-8369.

Upon connection type HHH (RETURN after that).
Wait for the U#= prompt.

Type: XTX99587,CPUREPT then, hit RETURN.

**** SIGN UP FEE WAIVED ****

The system will now prompt you for your information.

-> NOW! GENIE STAR SERVICE IS IN EFFECT!! <-

> DELUXE PAINT CO. STR Featureâ € GENie Online Conference with the Authors
=====

December 5, 1990

<[Sysop] JEFF.W>

On behalf of the Atari ST Roundtable, I welcome all of you to the Deluxe Paint ST RealTime Conference on GENie. Before getting started, some business about how an RTC works. While the RTC room is in Listen-Only mode, you can only address our guest when I let you talk.

To get my attention, just /RAise your hand. Just enter this from your keyboard: /rai

I'll acknowledge your raised hand as soon as I can, but please be patient.

I -WILL- let you know when your turn is coming up.

Some other RTC commands are:

- ? - Lists all RTC commands.
- /sta - Status (list) of everyone in the RTC room.
- /exi - Exit the RTC, but you remain logged onto GENie.
- /bye - Log off of GENie directly from the RTC.
- /rai - Lets me know you wish to address our guest.

And now, let's get started.

One of the particular strengths of the Atari ST is its graphics capabilities. The granddaddy of ST paint programs is Degas (pronounced "Day-gah", the "s" is silent), later becoming Degas Elite. Cyber Paint and Spectrum 512 were the next paint packages to catch on, pushing the ST's graphics and animation abilities further. While there have been other paint packages, Degas, Degas Elite, Cyber Paint, and Spectrum 512 have been the major players.

After a period of stagnancy in paint programs, the ST is now enjoying the recent release of two new paint programs. The co-author of one of them is here with us tonight.

Anthony Pabon is co-author of Deluxe Paint ST, which is published by Electronic Arts UK and is marketed here by Electronic Arts USA.

Rather than me trying to describe DPaint ST for you, let me turn it over to Anthony. Do you have any opening statements before we go to questions, Anthony?

<[ArtisTech] A.PABON>

I would like to introduce the people in the room with me. In the room, there is Troy Gillette (animation guy), Stephen White (original Da Vinci programmer), and Theodore Pabon (beta tester, artwork, and general support).

Would you like me to begin with a description of DPaint?

<[Sysop] JEFF.W>

Yes, please.

<[ArtisTech] A.PABON>

Oh, boy. Here we go...

In short, Deluxe Paint ST began over two and half years ago. At that time, we were developing some projects that needed graphics. We found the existing paint programs to lack needed features and to be too slow. Deluxe Paint ST (originally called Da Vinci) began as a simple utility to be used with the existing editors, but it got a bit out of hand, and we soon realized that we might as well take the plunge and make the ultimate art package.

Enough history!

<[Sysop] JEFF.W>

What are some of the features of DPaint ST that distinguish it from other paint programs for the ST?

<[ArtisTech] A.PABON>

DPST has many features not found in the other paint packages.

First, DPST supports up to 999 buffers each which can hold a 999 frame animation.

Next, we have many drawing modes, which aid in making very fancy looking displays with a minimum of work or art knowledge.

Also, we have a real-time magnify, which updates at about 100 frames a second. Plus, the magnify works with all drawing modes & tools.

DPST supports the 4096 palette of the STe.

Plus, it all works in 512K (although it takes advantage of any more memory if you've got it).

Our font system allows you to edit and design 16 color fonts within DPST. Also, the fonts are proportional with kerning.

Basically, we've got more drawing tools, features, and speed than any other drawing package.

We could go on about this all night, are there any specific questions?

<[Robert] R.CARPENTE17>

What animation advantages does it have over CyberPaint?

<[ArtisTech] A.PABON>

First, we support multiple animations. You can theoretically edit 999 animations (with different palettes) simultaneously. Also, our tweening is much easier to use than Cyber's. Also, we work in 512K, and we can hold much larger animations in 1 Meg.

<[Robert] R.CARPENTE17>

How many animation frames can you support with 4 Megs?

<[ArtisTech] A.PABON>

You can have 999 frames per each buffer, so any 1 animation has a maximum of 999 frames.

<[Sysop] JEFF.W>

I take it the contents of the frames determine the size, which would

determine the number of frames you could have in a system of a given memory size?

(Did that make sense?)

<[ArtisTech] A.PABON>

Yes, we delta compress the frames, so the more complex the change between the frames, the more memory is used.

<[bry @ ahh] B.NYSTROM>

Why the IFF file format (besides being compatible with Amiga)? Does it have any other advantages (IFF)? And is the new IFF format compatible with Amiga?

<[ArtisTech] A.PABON>

We went with the IFF file format because of its flexibility. Also, we wanted to be somewhat standard with existing machines and programs. Yes, we support the Amiga IFF as an option within DPST. To be compatible with the Amiga, you select that you want the file to be saved using the ILBM compression.

<[bry @ ahh] B.NYSTROM>

Does that mean that the ST IFF mode is not compatible on all machines?

<[ArtisTech] A.PABON>

No, DPST defaults to our own compression technique. We still save using the IFF standard, but unless a program supports our compression, it will not be able to load the picture. We offered our compression technique as an option because it compresses and decompresses much faster than the Amiga standard. If you want to be compatible, for now, be sure to save the picture using ILBM (byterun) compression.

<[bry @ ahh] B.NYSTROM>

Thank you very much...And thanks for a great ST program!

<[ArtisTech] A.PABON>

Thanks, bry!

<[Sysop] JEFF.W>

DPaint ST works in other graphic formats also, right?

<[ArtisTech] A.PABON>

Yes, we also support D.e.g.a.s compressed and uncompressed and NEOChrome.

<T.DODGE>

You mention that you can have much larger animations than Cyber, you are using this proprietary compression, is it compatible with the SEQ and DLT files?

<[ArtisTech] A.PABON>

No, it's along the same technique, but it is not compatible. I've heard that someone is working on a converter. A quick comment, we uploaded complete docs on our compression onto GENIE. It's not proprietary.

<T.DODGE>

I know that DP is 2 -1/2 animation, but can it import .3D2 files?? Or, just bit mapped graphics only??

<[ArtisTech] A.PABON>

I'm not sure I know what 2 -1/2 animation means? DPST does not support .3d2 files. DPST only deals with bit map graphics.

<T.DODGE>

2 -1/2 is flat objects give a 3-D perspective effect. Thanks, that's all for me.

<B.MALATESTA>

Maybe a way off base question, but I am very pleased with your program and wondering if it can run Mega STE at 16mhz.

<[ArtisTech] A.PABON>

Yes! It runs just fine at 32MHz on a TT. It'll work just fine.

<[bry @ ahh] B.NYSTROM>

Me again (short Q! :-).. 2 part:

- 1) What else is ArtisTech working on (or planning to work on), and
- 2) what was DPST written in?

<[ArtisTech] A.PABON>

We are currently working on two games. We can't comment too much about them right now, but I can tell you that they're both adventure/arcade games.

Next, DPST, believe or not, was written using a C compiler. We used Laser C (which is an excellent program), and the entire DPST was written using inline assembly statements. Pretty weird, huh?

<[bry @ ahh] B.NYSTROM>

(IMHO) Sorry to hear that they are games :-(

DPST is a good productivity tool and that is more of what the ST needs to survive here in the US....Thanks!

<[ArtisTech] A.PABON>

Don't worry, we're all utility happy around here. Games don't take very long, and I'm sure at least someone around here will be making new utilities soon!

<[JR] J.WENZEL2>

I was wondering what the actual frame rate for animations? (I don't recall it being stated in the manual)

<[ArtisTech] A.PABON>

We set our maximum frame rate to 30 frames a second.

<[JR] J.WENZEL2>

A comment:

I've been using DPaint for around 2 weeks now and would like to convey my most heart felt thanks for the development of such a high quality graphics tool.

<[ArtisTech] A.PABON>

Thanks, JR! We worked extremely hard and long on the project, so it's always nice to hear compliments like that!

<[Sysop] JEFF.W>

JR, a question for you...

What feature of DPaint ST stands out the most for you?

<[JR] J.WENZEL2>

It's hard to say...

One of the most useful aspects about it is the ease with which objects can be manipulated on various axes of rotation and the drawing operations are quite excellent.

<[Sysop] JEFF.W>

Thank you, JR. It's good to get a user's point of view.

<[JR] J.WENZEL2>

:)

<B.MALATESTA>

Thanks, one of the reasons I purchased Dp was the knowledge that I am getting a program with support behind it. I always saw the Amiga version(s) and enjoy using them.

I am just learning how to use DP, but I look forward to years of use.

Now my question.

Is there anyway to stop DP from accessing my drive when I load DP off my Hard Drive. Without a disk in A it crashes???

<[ArtisTech] A.PABON>

That's very strange! Delete your .cfg file. It sounds like it's trying to configure to drive A.

<[Tired Ken] K.BAD>

Good evening!

Got a couple of quickies...

Number 1, is there a way to draw on a canvas that's larger than a screen? (or am I missing something in this excellent manual ;)

Number 2, when you draw diagonal lines with a /-shaped brush, you get holes in the lines... can you recommend a workaround?

<[ArtisTech] A.PABON>

No. We discussed having larger canvasses way back at the beginning, but we were so interested in speed and memory saving that we threw out the idea.

The reason you get holes in lines is that you are drawing with a diagonal brush. Any paint program will do the same thing. If you want to plug the holes, just use a brush which is double thickness.

<[Tired Ken] K.BAD>

Okeydoke, thanks. And thanks for a great paint program. The more I use this thing, the more I like it.

<[ArtisTech] A.PABON>

Thanks, Ken.

<[Sysop] JEFF.W>

That just about wraps things up. Anything else you'd like to add, Tony, Troy, Stephen, and Theodore?

<[ArtisTech] A.PABON>

A quick plug. We got "best application software of 1990" from readers of ST Format, and best art/graphics package by ST Format editors.

<[Sysop] JEFF.W>

Congratulations! It's well deserved!

<[ArtisTech] A.PABON>

Thanks, Jeff.

<[Sysop] JEFF.W>

Thank you folks for being our guests this evening and thanks to all who participated. Thanks to all for making this Deluxe Paint ST Conference successful!

=====
(C) 1990 by Atari Corporation, GENie, and the Atari Roundtables. May be
reprinted only with this notice intact. The Atari Roundtables on GENie
are *official* information services of Atari Corporation.
=====

> Stock Market ~ STReportâ € VALUE OF ATARI STOCK JUMPS 12 PERCENT!
=====

THE TICKERTAPE
=====

by Michael Arthur

The price of Atari stock went up 1/8 of a point on Monday, and was up another 1/8 of a point on Tuesday. On Wednesday its price was down 1/8 of a point, and went up 1/8 of a point on Thursday. On Friday the price of Atari stock stayed the same, ending the week at \$2.25 a share. On November 30, the price of Atari stock was up 1/4 of a point from its price on November 23.

Apple Stock was up 3/8 of a point from Friday, November 23, 1990.

Commodore Stock stayed at the same price it was on 11/23/90.

IBM Stock was up 1 point from 11/23/90.

Stock Report for Week of 11/26/90 to 11/30/90

STock Reprt	Monday		Tuesday		Wednesday		Thursday		Friday	
	Last	Chg.	Last	Chg.	Last	Chg.	Last	Chg.	Last	Chg.
Atari	2 1/8	+ 1/8	2 1/4	+1/8	2 1/8	- 1/8	2 1/4	+1/8	2 1/4	----
									20,500 Sls	
CBM	9 1/2	- 3/8	9 3/8	-1/8	9 7/8	+ 1/2	9 3/4	-1/8	9 7/8	+ 1/8
					394,300 Sls				230,900 Sls	

Apple	36 3/4 + 3/8	37 1/2 +3/4	36 3/4 -3/4	36 3/4 ----	36 3/4 ----	
					1,084,900 Sls	
IBM	113 7/8	113 1/2	112 3/8	112 - 3/8	113 5/8 +13/8	
	+1 1/4	-3/8	-1 1/8		1,804,400 Sls	

'#' and 'Sls' refer to the # of stock shares that were bought that day.
'CBM' refers to Commodore Corporation.

> 4mb 1040STe STR Featureâ ¢ "....Yes, it's easy!"
=====

UPGRADING YOUR 1040STE.
=====

"A very SIMMple task"

by Jim Keho, PHAST

NOTE:

If your STe is still under warranty you may want to print this out and save it for the future. This will void your warranty.. I waited the 90days. And if your not completely sure you can do this, Take it to your local Atari dealer if available.. I can't guarantee that it'll work for you, but it did for me.

Yes, it's easy. There's a different way to do a 2meg, 2.5meg, & 4meg upgrade, therefore I hope this'll be of help to anyone that desires to upgrade their STE.

Tools needed:

PHILLIPS SCREWDRIVER

NEEDLE NOSE PLIERS.

Parts needed:

SIMMS (depends on how much your going to upgrade to), you'll need two 1meg SIMMS for upgrading to 2 megs, and four 1meg SIMMS to upgrade to 4megs. 100ns or faster is fine. And 1megx9 are also used in IBM's, so if you ever want to use them later in an IBM you'll have them. Prices vary, I've seen and heard prices ranging from \$30.-\$50. per SIMM.

There's also a little program w/text file floating around (on BBS's)t-hat allows using two of the 256k SIMMs (that came in the STE) along with two 1meg SIMMs and fools the MMU into thinking it's a 2.5meg STE, instead of a 4meg STE. You'll need to locate this little program if you'd like to try it. I did try this out. And it works, but it seemed like I was

doing a lot of cold booting to get it to work most of the time. So I decided it wasn't worth the trouble for the extra half a meg. I'll have to wait until I can afford two more 1meg SIMMs. You may also be able to get a little trade-in for the four 256k SIMMs if you want, they're not worth a lot.

OK, Ready?

Unplug everything. Turn the STe computer upside down, remove the seven screws on the bottom (these are the ones identified by a little square hole). When all screws are removed turn the computer back right side up with the keyboard facing you, and remove the top half of case taking a little care at the floppy drive end (it kind of sticks). Now you should be looking at the whole keyboard and metal shielding along the back. At this point, you need to remove the screws holding the shield to the back left (don't forget the 3 on the backside) which covers the power supply and SIMMs, now untwist the metal tabs holding the shield (if applicable). That's it. You should be able to see the four 256k SIMMs. For the big question: How much to upgrade?

For adding two 1meg SIMMs for 2megs, you'll need to remove all four 256k SIMMs (that came in the STE) and install the two 1meg SIMMs like this:

```

2 megs          (Back of STE)
                |-----1meg SIMM-----|
                |-----empty-----|      top view
                |-----1meg SIMM-----|
                |-----empty-----|
                (Front of STE)

```

And for adding four 1meg SIMMs for 4megs, you'll need to remove all four 256k SIMMs (that came in the STE) and install the four 1meg SIMMs like this:

```

4 megs          (Back of STE)
                |-----1meg SIMM-----|
                |-----1meg SIMM-----|      top view
                |-----1meg SIMM-----|
                |-----1meg SIMM-----|
                (Front of STE)

```

OK, That's it. Pretty SIMMple. eh?

> STR Portfolio News & Informationâ €
 =====

Keeping up to date...

THE ATARI PORTFOLIO FORUM
 =====

On CompuServe

The big news in the forum this week is that BJ Gleason uploaded PBASIC 3.0 (Library 1, New Uploads). This version adds strings, two dimensional arrays, many sample programs, and an online help file. The online help is actually a Portfolio Address Book file; you call the Address Book to read the "cards" about each topic. Here's a tip: when pressed for speed in PBASIC, use one-letter variable names. The interpreter automatically recognizes that they must be variables and skips the time-consuming search through the command table.

Other uploads this week: PF1.1 is a program that works like the File Manager that now ships with all Portfolios. It performs some functions differently and will likely be upgraded. BJ Gleason also uploaded two new Portfolio games, Othello and Fence. I'm a novice at Othello, so the Port beat me handily. In Fence, you drop "fences" that bounce a ball towards a moving target. I uploaded a bibliography of a few magazine articles and one book about the Portfolio while someone who attended COMDEX uploaded a text file with coverage of the Portfolio products shown there.

Some COMDEX topics are still being debated in the message area, many of which deal with desired features for the next Portfolio. A "Portfolio vs. Sharp Wizard vs. Casio BOSS" debate seems to have been ignited by COMDEX. My interpretation of the debate is that the Wizard and BOSS are really good at organizing (scheduling, phone numbers, etc.) since that is what they were designed to do. The Portfolio does have organizing functions, but it can do much more: BASIC programming, games, terminal emulation, and so on. Top-of-the-line Wizards add some of these functions through expansion cards, but those cards can be expensive.

A great many of the forum messages are requests for help from new users. Most of these requests deal with connectivity to desktop machines, so a bit of coverage here is in order. There are essentially three ways to move files between a Portfolio and a desktop computer: the PC card drive, the Smart Parallel Interface, and the Serial Interface.

The PC card drive (less than \$100) is for MS-DOS machines--an interface takes a slot in the computer and connects to a Portfolio RAM card reader. The RAM cards can then be read by the computer like floppy disks. This is the most efficient way of moving files, but is only available to MS-DOS users at present. We Mac and ST users sure would like a card reader for our machines!

MS-DOS users can also use the Smart Parallel Interface (about \$40) for file transfer. The interface comes with both 5.25" and 3.5" disks with PC file transfer software; the Portfolio software is in ROM and accessed through the Setup program.

The Serial Interface (about \$60) provides an RS232-C port that can be connected to modems, serial printers, or other computers. For file transfer, you need a null-modem cable and terminal programs on both machines. Getting the terminal program such as XTERM2 into your Portfolio the first time is the difficult part. While I've heard that it is possible to use the COPY AUX command, it's much easier to get someone to copy XTERM2 to your RAM card. For example, my Atari dealer copied it to the RAM card I bought from him. XTERM2 is also on the DOS Utilities ROM card sold by Atari.

Please, Do send feedback and suggestions to me on CIS; in the forum,
type: (GO APORTFOLIO).

> The Flip Side STR Featureâ ¢ "...A different viewpoint"
=====

A LITTLE OF THIS, A LITTLE OF THAT
=====

by Michael Lee

Have you been confused as to what type of SIMM's the new STE's use?
What speed? What's the price? Here's some info that might help....

From Frank Bell on Genie:

...The STE contains 4 256K SIM boards equaling 1000K (1 meg). You can upgrade to 2 or 4mb using 2 (or 4) 1mb SIM boards. Unlike the old ST's, you can't upgrade to 2.5Mb. To upgrade, your dealer just has to open up the machine, take out the 256k SIMs and push in the 1mb SIMs. Five minutes of his time and one hour labor (plus SIMs) for you.

...I've heard that a friend of mine has written to small Auto Folder program which allows the use of two 1mb SIMs (in the lower bank) and two 256K SIMs (in the upper bank) thus giving us 2.5mb of memory. I'll contact him and see if he'll release it to PD. Make sure the person doing your upgrade gives you back your 4 256k SIMs, you might need them (anyway, nobody else does).

From B.Malatesta on Genie:

...Anyone who is looking for SIMMs contact MET (Micro Electronic Technologies Inc.), they sell lifetime warranty SIMMs. Item 299-MD1M08M-80 at only \$50.00 EACH.. Call them at 1-508-435-9057.

From Doug Wheeler (Gadgets) on Genie:

...The Chip Merchant in San Diego (almost always the lowest prices) is advertising 1 Meg SIMMs for \$39 (see latest MacWeek).

Jim Allen (FAST Tech) on Genie:

...I'd invest in 1Megx9 SIMMs at 70ns....Any SIMMs faster than 150ns are fine, invest in the best and they will be useful for many years...use x9 SIMMs so they have worth for PCs.

From Ken B. (Atari) on Genie:

...The desktop does what it can to clean up after programs that bomb out,

but more often than not, it isn't enough. The best thing to do when you see bombs is reboot.

...Guy Kawasaki said something very interesting that I'll paraphrase for this occasion: "The number of bombs you see on the screen when a program bombs out is equal to the number of additional months the program should have been tested before it was released."

From Lauren (Wordflair) on Genie:

NEWS NEWS NEWS NEWS NEWS NEWS NEWS NEWS NEWS NEWS NEWS NEWS NEWS

Goldleaf Publishing, Inc. cordially invites users of the following word processing programs to switch to Wordflair II to attain a new level of document processing power:

1st Word Plus (GST) Microsoft Write Word-Up (Neocept) Word Writer St (Time Works)

Now through February 15, 1991 only, users of any of these programs may order Wordflair II direct from Goldleaf Publishing, Inc. for half price. In order to qualify for this special offer, users must send their original disk(s) and a check or money order in the amount of \$75 to Goldleaf Publishing, Inc. at 700 Larkspur Landing Circle, Larkspur, CA 94939. For more details, contact us at 415/461-4552. Wordflair II will ship on or before January 2, 1991.

Atari User Group Coordinator, Bob Brodie, will be appearing at the ACES user group meeting in Southern California on December 12, 1990. The meeting will be at the West Covina City Hall Council Chambers, just south of the San Bernardino Freeway (10) at the West Covina Parkway Exit. Exact address is 1444 W. Garvey.

For further information, please contact Tara Jacobs, President of the Atari Computer Enthusiasts Society (ACES) at 818-331-1172.

Everyone is admitted free. The meeting starts at 7:00PM.

Are you interested in programming on the ST but can't afford the Atari developer's package? Here's three books that are "must haves"...

From Stan Sensy on Genie:

I received all three of the Compute's Reference Books from Micro-Tyme, a mail order house in Ohio. The number is 1-800-255-5835. This was a few months back, but they still list them in their advertisement in STart. If you can't get them there, here are the titles, ISBN numbers, and the price listed on the book.

Atari ST : VDI	ISBN 0-87455-093-9	\$19.95
Atari ST : AES	ISBN 0-87455-114-5	\$19.95
Atari ST : TOS	ISBN 0-87455-149-8	\$24.95

I don't know if they still have them in stock. If not, you should be able to order from B. Dalton or Waldenbooks as long as you have the ISBN info.

Some interesting information about the new STe's. It looks as if Atari is finally shipping them with TOS 1.62 installed.

From John Townsend (Atari) on Genie:
...STE machines are now being manufactured with TOS 1.62, MEGA STE machines will have their own version and the TT was 3.01. None of these OS versions require any patch programs at all.
...TOS 1.4 upgrades are still being shipped the same way.

Until next week.....

> TT030 OVERVIEW STR FOCUSâ €
=====

A CANDID LOOK AT THE "TT"

TWO CENT'S WORTH
=====

by M. Perdue

Over the last several months, I have read and heard many negative comments about Atari's new computer; the 'TT030'. In fact, the complaints were so numerous that I had almost decided that I didn't want to waste my time or money on one, and was seriously looking at products available from other vendors. That's when fate stepped in. Last month, I had the pleasure of attending COMDEX to help Ditek International show a product called DynaCADD. Since I was already familiar with the 'ST', I was assigned to work the Atari booth, and given my very own 'TT030' for the week. I had only a brief exposure to the machine before COMDEX, so on the first day I decided to come in a little early and 'play' with it. I was impressed!! Where was the slow machine that I had been reading about? The TT was really fast. By the end of the week I had decided that there was little or no justification for much of the complaining that was going on.

Since COMDEX, I have obtained my own TT (yes, they are available through VAR's even as you read this), and I am now even more impressed than before. All of the well written software already works on the machine in the ST resolutions. And the really good stuff (DynaCADD and NeoDesk for instance) also support the new TT resolutions AND the TT's faster RAM. From my own experience, every program that I have written which doesn't work has been because 'I' have broken the rules for programming the GEM environment.

I have also done a little testing to see just how fast the machine is. For the tests, I used Quick Index 1.8 from Branch Always Software. This program gives a nice comparison to a 'plain ST' in several performance categories. I ran the tests in all ST resolutions (it's not really

fair to compare modes the ST doesn't have) and averaged the results:

	ST RAM		TT RAM	
	ON	OFF	ON	OFF
CACHE				
CPU Memory	566%	172%	811%	264%
CPU Register	825%	197%	825%	319%
CPU Divide	1022%	768%	1022%	867%
CPU Shifts	3528%	2050%	3528%	3106%
DMA 64K read	5853%	5853%	5853%	5853%
GEMDOS file read	2419%	2348%	2419%	2419%
TOS text	252%	153%	268%	161%
TOS String	238%	159%	239%	160%
TOS Scroll	229%	156%	229%	156%
GEM Dialog	175%	125%	179%	125%

So, what does all this mean? It means that the TT is faster than the ST, up to 58 times faster in some areas. That's pretty impressive! As for some of the other complaints:

"It would sell better IF it didn't say Atari on it..."
"It would sell better IF it had a different case..."
"It would be faster IF it had a BLITTER..."
IF, IF, IF...
"If frogs had wings, they wouldn't bump their butt so much!!"
"If developers spent less time running down the machine, and more time developing software, Atari might have something to advertise about."

In closing, let me say that in my opinion, the TT is well worth the wait and the money. I recommend that anyone looking for a more powerful system than their ST look real close at the TT; you'll be glad you did.

> MDC-RCC STR SHOW NEWSâ €
=====

A Multi-Facet Show in St. Louis

MCDONNELL DOUGLAS RECREATIONAL COMPUTER CLUB COMPUTER FAIR
=====

by Ray Perry,
MDC-RCC Atari SIG director

November 30, 1990

On Saturday, November 3, 1990, the third annual McDonnell Douglas Recreational Computer Club Computer Fair was held in St. Louis, Missouri. The show was located in the large (~9000 square foot) Building 33 cafeteria on the McDonnell Aircraft engineering campus. Exhibitors included the 10 Special Interest Groups (SIGs) of the MDC-RCC (Amiga, Apple, Atari, Commodore, CP/M, IBM, Macintosh, Tandy, Texas Instruments, Timex/-

Sinclair), as well as other local user groups (ACE-St. Louis, CUGSL, EAUG), manufacturer representatives (Epson, Hewlett-Packard, Apple), area dealers (Cedar Computer, CompuAdd, First Capitol Computer, Forsythe Computers, Mind's Eye, Plato, Randall Home Computers, Systems Plus), and local software developers (Greg Kopchak, Softlogik, Kelly Webb).

Between 12 p.m. and 4 p.m., the show attracted more than 700 visitors, nearly half of whom were MDC employees. Most people took advantage of this opportunity to use and compare different types of computers. No actual sales took place at the show, but several dealers reported increased business the following week. Many exhibitors also donated valuable door prizes. Most notable among these were HP DeskJet 500 and LaserJet IIP printers contributed by Cedar Computer.

THE ATARI DISPLAY: Atari was well-represented at the show, with 5 Mega STs, 6 1040 STs, an SLM804, a 130XE, and a Portfolio. On my Mega, I demonstrated Calamus (using Kelly Webb's HP DeskJet 500), the Migraph Hand Scanner, the StereoTEK 3-D glasses, and the ST Replay audio digitizer. Jay Jones displayed the SLM804 laser printer and ran the Spectre GCR Macintosh emulator on his Mega. Jeff Randall, of Randall Home Computers, demonstrated IBM compatibility with his Mega and the Supercharger. Troy Baldwin used his Mega to show Atari desktop video animation capability with the JRI Genlock. And Cory Baldwin (Troy's brother) also showed Spectre on his Mega. Hank Vize ran Pagestream and WordPerfect on his 1040, and Kelly Webb demonstrated his Seurat paint program on two 1040s (color and mono). Greg and Randall Kopchak gave a mini-MIDI concert using their 1040, a MIDI keyboard, and a synthesizer module.

The smallest member of the Atari family, the Portfolio, was graciously provided on very short notice by Bizmart. The little computer was mounted on an attractive tabletop display unit which described the Portfolio and its peripherals. Multi-player games such as MIDI-MAZE and Stunt Car Racer were demonstrated on two networked 1040s, and the ever-popular Barn Blaster was running on the 130XE. There were also two demonstration video tapes running on an alternating basis. The first was Antic's impressive Cybermation video, which shows their Cyber animation products, and features music by Jean-Michel Jarre. Jeff Randall made the second video, which shows elaborate games and other things which look good, but are too complicated for a live demonstration.

Jeff Randall had hoped to bring one or more 1040 STes to the show, but his shipment didn't arrive in time. However, he got the machines the following Monday, and 5 of the 6 were sold in about a week. We asked Atari to provide hard-to-find items such as a STacy, a 19" monitor, and a TT. But, unlike the 1989 show, we didn't get anything from Sunnyvale this year. I also brought my Sony 8mm camcorder to the show, but I was unable to get it past the McDonnell guard force when my security escort failed to show up with the promised camera pass. This made it difficult or impossible to demonstrate VIDI-ST, Computereyes, and the JRI Genlock.

CONCLUSION:

I never left the Atari booth myself, so I can't comment on the displays of "other" computers. However, people who did tell me that our display was again the biggest and busiest of the show. I think the show was a success for everyone, including Atari, and I hope that Jeff and Tim Randall sell a lot of STes (and STacys and TTs?) as a result. I would like to thank all the individuals, user groups, and companies that made the show possible. The McDonnell Douglas Recreational Computer Club has decided to hold the 1991 Computer Fair at an off-site location, with the exact time and place to be announced soon. The site chosen will allow

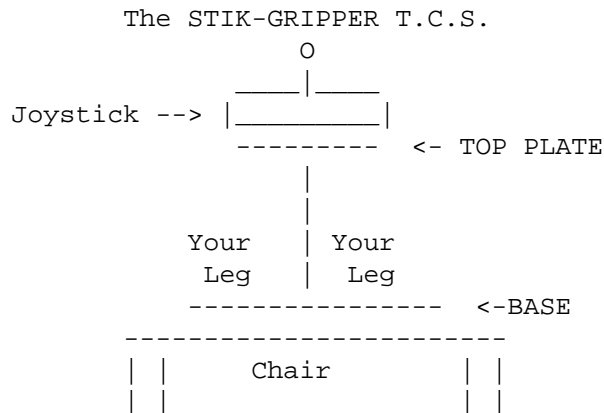
direct sales and will have no restrictions on recording devices (like my camcorder). With everyone's help, we can make next year's show the biggest and best yet.

> NEW PRODUCTS! STR InfoFileâ ¢ Stocking Stuffers!
=====

* *PRESS RELEASE* *PRESS RELEASE* *PRESS RELEASE* *

Duggan DeZign Inc. proudly announces the release of another fantastic new product directed at anyone who plays games on any personal computer! It's called 'THE STIK-GRIPPER T.C.S.' (Total Control Stand) and it will bring the fast and furious arcade action into your home!

THE STIK-GRIPPER T.C.S. is a rugged, three piece plastic stand which you easily mount your Joystick to thru the use of the large Velcro pads provided or the Suction cups on your Joystick! Here's how it works: Simply place the T.C.S. on any chair with your legs over the base of the stand (see below). This will firmly hold your Joystick front and center of you where you need it! This product is excellent for Flight Simulators as it gives the true 'Flying by the Stick' feel! It also allows you to use the Keyboard and the Joystick at the same time which can be life saving at crucial moments!



THE STIK-GRIPPER T.C.S.TM is very versatile as just about any Joystick can be mounted to it. Even large Joysticks such as the Gravis SWITCH STICK and MOUSE STICK; the FLIGHT STICK from CH; and the BeeShu HOT STUFF can be mounted to it. Smaller Joysticks such as the Suncom SLIK STIK and the Atari 2600 Joysticks also work excellent with this product. THE STIK-GRIPPER T.C.S. also adds Tremendous value if your Joystick has Suc-

tion cups as you can stick them to the top of the T.C.S. instead of have to secure it to a table!

Best of all, the THE STIK-GRIPPER T.C.S. is ergonomically designed for long, comfortable play. It eliminates hand fatigue from holding the Joystick and allows you to rest your arms and hands while you play!

THE STIK-GRIPPER T.C.S. has a Manufacturer's Suggested Retail Price of only \$19.99 and will be available on December 1st, 1990 at computer dealers everywhere.

Or, send a check or money order to:

Duggan DeZign Inc.
300 Quaker Lane, STE # 7
Warwick RI 02886
Phone (401) 823-8073 FAX (401) 826-0140

-----**-----

*** NE Atari Fest Video Tape of the Show NOW Available ***

Did you miss the opportunity to attend the New England AtariFest '90?
If you attended, would you like to re-live the experience?

THE SOUTH SHORE ATARI GROUP & EQUINOXX STUDIOS has the solution!

Get your New England AtariFest '90 Video today!! Almost 2 hours of non-stop enjoyment, including the entire seminars by Bob Brodie and Ralph Mariano. All for just \$14.95 + \$3.00 s/h (\$17.95 total).

Name_____ Address_____

City_____ State_____ Zip_____

Send check or money order, payable to SSAG (in U.S. funds) to:

SSAG - NEA '90 Video

P.O. Box 129

Hyde Park, MA 02136

=====

LIFE AFTER THE ATARI ST
=====

part I

by Darek Mihocka,
President, Branch Always Software

"1990 will be the year of Atari!" Well, maybe not. Ok, how about "1991 will be the year of Atari!". Sorry. Wrong again. It seems that every year we Atari users get our hopes up, and every year we are treated to more disappointment and waiting. And for some reason the Atari users hang on hoping that next year will be the year Atari finally gets it right. I for one am fed up with the waiting and have decided to write this article for the benefit of all the other Atari users stuck in similar positions.

What I am going to do is to try to open your eyes to other alternatives, and perhaps ask some questions and make some statements that will upset some Atari users. There is life after the Atari ST. Whether it be a Mac, or a PC clone, or an Amiga, or NeXT, or some other computer. The alternative I will focus on will be an inexpensive 386 clone running DOS and the Windows graphics environment. Millions of such machines are already in use in this country, and it is an excellent step up from the ST.

I am fully aware that by this time, most of the people who have bothered to read this far are having thoughts like "Messy DOS sucks", "clones", "there's no good software for the PC", "IBM sucks", "he's abandoning the ST", "GEM lives!", "I'm using PC Ditto", etc. This is expected and is exactly why someone needs to sit down and explain the facts about PCs to Atari users. If you wish to be close minded, then stop reading right now and keep suffering.

It has been my experience (from meeting literally thousands of fellow Atari users over the years) that we Atari users are a strange bunch. We are steadfastly loyal to our machines. Fanatically so, to the point where it is irrational. This may have been helpful in the past to keep the Atari community alive, but I'm afraid the patient is terminally ill.

The sad fact is that this loyalty has made most Atari users too close-minded about what is going on in the rest of the computer world. Things that were true a few years ago (for example, that the ST had superior graphics and price) are no longer true. More than 50 million people around the world use DOS based machines (IBM PCs, ATs, Compaqs, clones, etc). Perhaps a million use TOS based machines (STs, Mega STs, STEs). This alone says something about how futile the cause has become. There is life beyond video games and graphics demos.

Let me start off giving a bit of background about myself so that I am not accused of not knowing what I am talking about. I have been an Atari 400/800/XL/XE/ST/STE user and developer for almost 10 years. I am one of the founders of Branch Always Software, and developed Quick ST, MonSTER, ST Xformer, and many other 8-bit and ST programs. For the last 3 years I have also been a part-time (and now full-time) developer at Microsoft

involved in various DOS, Windows, OS/2, and GEM products. I have also had the opportunity to live in both Canada and the United States and see first hand the state of the Atari communities in both countries.

When I lived in Canada, I was rather fortunate to live within an hour's drive of Toronto where at one time dozens of Atari 8-bit and ST dealers were located. There was no shortage of STs, 130XEs, laser printers, monitors, and even those color ST monitors with the built-in floppy disks. There were also many user groups. The Toronto Atari Federation, which I was proud to be a member of for several years, easily drew 200 people to its monthly meetings. However, more recently here in the United States, I have seen dealers disappear one by one, user group attendance drop sharply, and there is a noticeable shortage of Atari products.

What were the reasons for Atari's success and loyal following a few years ago and the current decline? I can think of two good reasons: technical excellence, and low price, better known as "Power Without The Price". It was a catchy slogan, and one that in 1985 was very true. The 520ST and later the 1040ST were amazing marvels of technology. In 1986, in my first year of college, I upgraded from my Atari 8-bit system to a 1040ST. For \$1600 (or \$1200 U.S.) I had a one megabyte machine with a state-of-the-art 3.5" disk drive, color and monochrome monitors, and a graphical environment built-in. Nothing on the market at the time could match that power for that price. For another \$800, I had a 20 meg hard disk. As a student, it was the ONLY 16-bit computer I could afford to dream of owning. And I didn't just have to dream.

Oddly enough, the ST system cost me less than the Atari 400 system I bought in 1981. This is due to the fact that the power of computers doubles roughly every two years. Computing power is becoming cheaper every year, which is why my original Atari 400 system wouldn't fetch even \$100 today.

Similarly, in 1982 one could purchase a 64K IBM PC with cassette BASIC and a monochrome monitor for about \$3000. Today, for a similar price, you can buy a machine 30 times faster with 10 times the screen resolution.

Tragically, Atari didn't continue along this trend after 1985. Many things were promised such as CD-ROM drives and transputers and powerful new TOS upgrades. These items have all finally been released, sort of. Today, the 1990 model of the Atari 1040ST has the same memory, graphics, sound, disk storage, and speed of its 1986 predecessor. The only difference is that it contains TOS 1.2 instead of TOS 1.0, a minor improvement. The long awaited TOS 1.4 is yet to be found in most machines because Atari won't start installing it in new machines until old supplies of TOS 1.2 chips run out. The promised blitter upgrade of 1986 never materialized. CD-ROMs are available to developers and are used as little more than audio CD players.

The top of the line ST, the 1040STE, while costing around the same as the 1986 1040ST, has only a blitter chip, extra colors, stereo sound and TOS 1.6 (really just a modification of TOS 1.4) to show for 4 years of technological improvements. No 68010 or 68020 chip. No 1.44 meg disk drive. No improvement in screen graphics that many people expected.

During the same 4 or 5 years, companies like Apple, IBM, Compaq, and Commodore have followed the trend. The difference between the 6 Mhz 80286 based AT and a 20 MHz 80486 based PS/2 are amazing. Or compare the original Mac with one of the new Macs in the same price range.

Just think of all the other advances where power has increased while price hasn't. From 300 baud modems to 2400 baud modems. From 160 character-per-second 72 dot-per-inch dot-matrix printers to 8 page per minute 300 dot-per-inch laser printers. From 640x200 2 color CGA cards to 1024-x768 256 color VGA cards. From 20 megabyte hard disks to faster and smaller 150 megabyte hard disks.

One could point to the TT and say that this is the missing computer in Atari's evolution. At 32MHz, it is 3 to 8 times faster than the ST, has improved graphics, a 1.44 Meg floppy disk, a hard disk and several megs of RAM. But a complete TT system with monitor currently sells for about \$5000 in Canada. This is significantly higher in price than not only the ST, but also much higher in price than many competing computers!

I am also one of many unhappy developers who is fed up with waiting to receive a 16MHz developer's TT. For months I have been given various stories, depending on who at Atari I spoke with. One person said all I have to do is phone up Sunnyvale and order a machine (and send \$1900) and I'll have it in a few days. Another person said that I am on a waiting list of developers due to a shortage of machines, and that the price is really \$2500. Another person said to wait after Comdex. After Comdex I drove to Sunnyvale, cash in hand, to buy a machine only to be given more excuses. The latest I heard is that they feel that the nature of my products would not generate enough TT sales to justify letting me buy the developer's unit. I wish they would at least get their stories straight. If developers can't get them, who is going to write new software for the TT?

Whatever the reason, I have been unable to get a development TT to write products for. Meanwhile, 130 miles north in Vancouver B.C., Atari dealers are selling the full blown 32 MHz units to anyone who is willing to blow \$5000, and in Germany the TT has been around for months. With very few developers owning TTs and developing software to take advantage of the TT's power, the TT is nothing more than a fast ST at the moment. If you want a fast ST, spend \$300 on a 16MHz accelerator board and drop it in a Mega ST or STE. You'll have most of the speed of the TT!

What went wrong with Atari? Certainly this question has been argued to death by just about all Atari users. As a developer, I point the finger not on the lack of advertising, but rather on the usually pathetic developer support. There was a ray of hope earlier this year, and in fact for a while I was receiving regular monthly developer's newsletters. Atari talked to developers. They let them see and touch the TT and the lucky few got to own them. They sent out documentation. They shipped the Portfolio and STE and Stacy one after another and things were really looking good. But now that several key people involved with this turnaround have left, it does not look promising. They are already past due on their newsletters.

And a few months of developer support won't change the years of not releasing needed information to developers or providing the kind of support required. It has become a spiral, slowly eating away at Atari. Developers are unhappy and leave for other markets. This results in fewer software products, and thus fewer machines sold. This results in a small market which drives away more developers. The total result to the end user is a small selection of software and far less "Power" for the "Price".

A lot of ST users, frustrated by the lack of software for the ST, have purchased software or hardware emulators, to make their ST act like a Mac or PC clone. "It's a cheap Mac or PC" they say. Well, perhaps they bought

the wrong computer. These other computers have flourished over the past few years. Why?

One reason is better developer support. Another reason is that the companies did not try to do everything themselves. IBM is good at building 80x86 based machines (although some would argue with that). If you want an operating system, you go to Microsoft, not IBM, and buy DOS or OS/2. If you want to improve the screen graphics, you go to one of many dealers of VGA cards, not IBM. If you want to upgrade your hard disk, you go to a hard disk dealer. Unlike IBM, Atari forced you to buy their monitors, their disk drives, their hard disks, their printers, etc. It took several years for third party companies to offer alternative products, and in the area of screen graphics, there are still no cheap alternatives. Closing the machines off so that expansion cards could not be easily added to the machine also didn't help. There are hundreds of third-party plug-in cards for the PC, which do everything from improving screen graphics to interfacing to a CD-ROM to speeding up calculations.

IBM was not always like that. They learned their lesson from the clone makers. Apple is beginning to learn its lesson and is also changing its ways. Many other companies never did learn. Remember the Coleco Adam? Or the Mattel Aquarius or Intellevision? Or the ZX81? ... Or the ST?

Enough depressing talk. Let me now start talking about the future; perhaps a year from now, or two years. When the ST market has all but completely died, and the number of PC compatibles tops 100 million. Where will you be? Do you plan on still being just an Atari ST user, stuck with software from the late 1980's and a machine you have no hope of ever upgrading?

I didn't think so. After coming back empty handed from Sunnyvale a few weeks ago, I decided that for my software company to survive, it will have to expand into new areas (no thanks to being shut out of the TT market). Besides, since the TT was now out of the question, I needed to satisfy my craving for a more powerful computer than an 8 MHz ST. Having worked with almost every personal computer under the sun, I decided to look into getting something from the IBM PC market. I have to admit, I was a bit ignorant myself about what exactly was available. Being used to using machines costing \$15,000 or more at my day job, I wasn't quite sure where the level prices in the low-end PC market were. The goal to was hopefully spend less than the cost of a TT.

At \$2000, the IBM PS/1 is a good machine with a solid company behind it. It has everything you need to get started in only minutes, such as DOS and Works, and a similarly equipped STE system would cost about the same. However, being a real IBM, you pay for the name, and similar 80286 based machines sell for as low as \$1200.

Thinking for the future, I also ruled out anything less than a 80386 or 80386SX based machine. Why? The 8088 and 8086 are over 10 years old. They are slow, only support up to 1 megabyte of memory, and are as obsolete as the 6502 chip. The 80286 chip, while it is much faster and supports protected mode operation (I'll explain that later), it is not really a multitasking processor. It is about as multitasking as the 68000 is.

On the other hand, the 80386 and 80386SX chips (I'll just refer to them as "386" from now on), were designed with multitasking in mind. Not only are they extremely fast replacements of the 8086 chip, but they have built into them what is called "virtual machine" mode. That means that the

386 can make itself appear to be an ordinary (but fast) 8086 running one piece of software, and then switch over into another "virtual machine" that is running some other piece of software. Both pieces of software are running at the same time, on the same 386 chip, and each piece of software thinks that it is alone in the computer. This is multitasking.

If this sounds too technical, don't worry. Just know that it is great stuff as far as running software goes. I'll discuss multitasking in more detail next week.

Anyway, back to buying a computer. I went to one of many computer dealers in Seattle that sells PC clones. Since the design on the PC is so modular, many of these dealers build the machines right on the spot, using off-the-shelf parts. That way you can mix-and-match parts to make your own custom machine. You decide on the hard disk size, the graphics card, the floppy disk drive, etc.

Now that I decided on a 386, I had to decide on a floppy disk. 5.25" floppies are pretty well obsolete, so 3.5" was the way to go. 720K or 1.44M? Well, 720K is ST compatible, but 1.44M drives (which simply hold twice as much information as the standard 720K ST drives) are becoming common in many machines and even in the TT. So I chose 1.44M. How big a hard disk? Well, my 20 meg ST hard disk filled up fast. I went with 60 meg. How much memory? Memory is cheap, so 4 meg. This ensures I can run OS/2 and multitask comfortably with Windows and don't have to worry about upgrading hassles later on to save a few bucks now. How many serial ports? Well, one would certainly do, but since I plan on hooking both my modems up (I have two phone lines) the thought of logging on to both Compuserve and GENie at the same time sounded appealing. I can download a file from one online system while reading messages in another. So, two serial ports. In fact, during the course of writing this using Word running on Windows 3, I have been logging into both GENie and Compuserve using a terminal program running in another window, and have Flight Simulator 4 going in the background, and I can switch to any program in an instant.

So far we have a 386 motherboard and DOS 3.3 thrown in. Now there is the matter of deciding on a graphics card. EGA is ok. It provides 640x350 resolution in color, which is almost twice the resolution of the ST's color monitor. But again, the price difference between EGA and VGA cards is small enough that a few dollars now will save some regrets later on. I chose a 1024x768 card, which displays 16 colors in that mode, and 256 colors in regular 640x480 VGA mode. Throw in a 400 dpi Microsoft Mouse. Finally, a multisync monitor rounded out the parts list.

In the end I purchased a 4 meg 386, running at 25 MHz, with a 60 meg hard disk, 256 color super VGA, 2 serial ports, a printer port, a mouse, 1.44 M floppy, and a really sharp monitor for a grand total of.... \$4000? No. \$3000? No. Try \$2100 (plus tax of course, but that's not their fault). For about \$200 more, I got Windows 3.0 and Works 2.0, two very good pieces of software to start off the system. The machine has a Norton SI rating of 26, and in real life tests it is only 40% slower than the fastest 80486 based machines I have tested.

Your prices may vary from state to state and dealer to dealer. But for about under \$2500 it is possible to purchase a complete 386 system with software that matches any similar ST system in price and outshines it in performance.

I would like to stop at this point and say that next week I will go into the software aspect the 386 system. I will discuss things like DOS

and Windows and just what good is multitasking. I'll discuss some popular software packages that are available. I'm sure a lot of ST users have heard of Windows 3.0 and have a limited knowledge of what it does, but how many of you really know how powerful it is? Having used and developed for Windows since the days of Windows 2.0, I know that it has things to offer to even the most die-hard GEM fans. I have barely exposed the tip of the iceberg in terms of what can be done on a 386 machine.

I would also like to hear from ST users about what I just said. I can be reached by email on GENie and Compuserve, or most mornings and evenings at the Branch Always Software phone number. Let me know your feelings about this so that I can address your concerns next week. I don't want to give the impression that I am abandoning the ST market. I am not. I have far too much invested in development right now to give it all up because I got a new toy. And I like the ST and always have. I wouldn't be spending thousands of dollars on advertising and newsletter mailings and developing newer products if I didn't plan to support the computer.

> SEGA GENESIS STR Reviewâ €
=====

DJ Boy from Kaneco

DJ Boy
Sega Genesis
Kaneco
\$54.99

You are DJ Boy, a roller skating kid, who's girl has been abducted by the local thugs...your job as DJ Boy is to skate through all the levels and eventually get your girl back.

It won't be easy...you've got several opponents on the street that you need to look out for:

Honey: who enjoys chucking bombs at you.

Dave : a chubby kid who whistles, calling more baddies into the fray.

Chic : These guys might be small, but their kicks can do damage.

Sam : They like to dance around you on their skates taking pot-shots at you.

Harry: Hits you from the side with elbow-blows.

Hatch: Uses a downward elbow-chop..ouch!

At the end of each level is an enemy boss...each has their own attack, with most being pretty funny...the 1st level boss is

tough, a heavy-set lady that does flying kicks and throws some kind of slop at you is pretty tough...each boss has their own weakness, most can't handle a certain attack method.

You have forward, and reverse punches, as well as a flying kick and a double-direction punch, great for getting out of tight jams. Certain CHIC characters (see above) drop a hamburger when they're eliminated...this refuels your energy bar. At the end of each level more energy containers are added to your bar.

Also at the end of a level is a store...when an enemy is killed a coin (three for bosses) is dropped, these can be used to buy a stronger punch, more speed, a reserve life, more energy, quicker punch, or more for your energy bar.

This game is in the Double Dragon genre, in that you kick, punch and duck your way through the game...the main difference is that you're on roller skates. Each level has a definite attack pattern, which can be memorized after several plays. There is a difficulty selector in the game as are the normal sound test stuff that most Genesis games have. This always adds something to the game as it can be played at a harder level once it's been finished. I usually set games to hard when I start to play them. This game seems too easy (for me) at the easy setting.

All-in-all, its a nice game...it's not the blockbuster hit of the year, but its fun, and has some quick actions. The enemy bosses are funny to watch, you almost don't want to beat them. The end of the game has all the bosses returning to fight you with no energy refills or breaks...I'm not sure if there's a final boss, I've been playing for a little over a week, and have only gotten to that point once (on easy setting). Since there are no pictures on the back of the box (who's crackpot idea was this?), you might wanna ask if a store has a demo copy, or a manual you can look at to help you decide.

DJ Boy synopsis:

GRAPHICS: B

SOUND : C (not the greatest)

GAMEPLAY: C (some of the special moves are hard to pull off)

OVERALL : B-

Captain Drazil

TURBO EXPRESS

=====

Turbo Express

NEC

\$249-\$280 (depending on where you go)

Well, I broke down and plunked out for the Turbo Express, I hadn't planned on getting one, but in my never-ending quest for video-fun....you get the idea.

In case you aren't familiar with this, the Express plays Turbo-Grafix 16 games (excluding the CD ones). These come on small cards about twice as long as Lynx cards, with the same thickness. The unit itself is black, with the normal control pad, two fire buttons, 'I' and 'II', two switches for each fire button that enable turbo fire (three levels, off, semi-rapid, and real rapid), start and run. Pressing start and run reset the unit. On the left side are the power port, earphone jack, and the volume and brightness controls. On the bottom is the link cable that lets two Expresses link together (games that actually support this aren't out yet).

The sound is clear, and with earphones are in stereo...I've tried this, and the games sound the same as on the Turbo-Graphix 16 with the Turbo Booster. The screen is great...it is higher in resolution than that of the Lynx, and owing to the fact that the screen was designed for TV, being shrunk down makes it look even sharper (I was very mistaken in thinking that doing this would look bad). as far as I can see, it is more vibrant and colorful than that of the Lynx, although roughly the same size as the one on the Gameboy. I've heard reports of persistence problems (objects that leave trails behind them when they move), and from the games I've played (Bonk, Sidearms, Chew-man-fu, Blazing Lasers, Alien Crush, Keith Courage, Splatterhouse, Moto-Roader, Cybercore, and Victory Run), I can see no noticeable trails, these might have been pre-production models or something. Some text is readable, but if text (mainly bright text) appears on anything other than black, or a dark shade of purple/blue/brown, its unreadable...I can make it out if I hang my Lightboy (for the Gameboy) over the screen, but unreadable otherwise...unless someone has a Turbo-Grafix 16 to play the games on as well, most of the text (stuff like the Boss characters' comments in Bonk) can't be made out. I have no trouble making out small objects however (ie. Carrots and Meat in Bonk are clearly distinguished).

As for the TV tuner, I don't know how good this is, I didn't feel like buying it straight off, and feel that the price might drop on this, people seem to be pushing it quite a bit as if sales on it are kind of slow, and I hardly watch my B/W Watchman as it is.

Buying this unit has given me the chance to try out a bunch of Turbo games where I work...Legendary Axe looks nice on the unit, the version of Klax isn't as good as the Lynx version, the digitized sounds are right, but they're really scratchy. Vigilante is Kung-fu (remember the game that NEC was ragging on when the Turbo-16 first game out, this is it, only with beatnicks)...I tried several others, and they all look nice, as I

said most text is unreadable, and I wouldn't be surprised if someone brought out a magnifier thing for this unit.

As purchased, the unit comes with 6 NEC (what else?) batteries, styrofoam (so nice for making doorstops, a manual/warranty card, and a strap to dangle this from your wrist (not suggested in dark alleys).

The batteries they give you last about an hour... I suggest buying a couple packs of good batteries, as they last about 2 hours...this thing drains power like a city...when you open up the battery compartment after play, the batteries are warm. Someone suggested getting rechargeable batteries, the manual says to use only NEC rechargeables, which sounds like a marketing gimmick. The AC adapter should be out soon, and a rechargeable pack will be out in Spring of '91, as will be a car ciggie-adapter, and the link-cable.

I like this unit...yes it eats batteries, and yes, its somewhat pricey, but its portable, and plays Turbo-Graphix games. If you already have a Turbo-Grax and some games, you might want to look into this, games I thought were kind of boring (Keith Courage) make nice portable games! If you don't have a Turbo-Grax already, you might wanna sleep on it, and try and get a look at the unit before you buy. Remember, it comes with NO GAMES, so you'll need to put out another \$25-\$60 to get started...that was one of the main reasons for me getting this, I already had roughly 10 games. There are quite a few games out for the unit in the \$25-\$35 range, quite a few of those are good.

In the past, I've just rated games, so I'm making up this rating system off the top of my head, any questions can be addressed to me at the above node, where I'm the residing Sysop-person.

Overview:

GRAPHIC CLARITY : 8 (GREAT!, only some text is illegible)
SOUND CLARITY : 7 (Good as well, speech is scratchy on most games)
FEEL OF CONTROLS: 9 (Smooth controls, and in this case, it fits the hand nicely)

OVERALL : 8

> TRACKBALL STR Reviewâ €
=====

.....A great stocking stuffer!

Kraft Systems TRIPLETRACK
=====

by Tim Holt
President: Atari ST Club of EL Paso

I have been frustrated for a long time at all the nifty things that are available for the ST in Europe, such as IBM style cases made just for the ST, etc. One of the more nagging longings that I have had was to get a trackball for my ST. Ever since I saw them down at Jenkins' for the IBMs and in all those slick European magazines for the ST, I have been on the lookout. Well, I don't have to look any longer, because Kraft Systems has very quietly come out with "Tripletrack" an extremely nice replacement for the standard ST mouse. For those of you that have limited desk space, or are like me and drag the mouse all over God's creation, the Tripletrack is a Godsend.

The Tripletrack comes in a light grey color, and is loaded with features that you won't find in any mouse that I have seen for the ST. The entire unit is smaller than the mousepad I had been using, at about 6 by 4 inches. Three buttons instead of the normal two are located below the trackball, instead of above. The track ball and the buttons are a slightly darker grey than the rest of the box.

Here is a list of features that I think you will find very impressive:

Compatibility: The Tripletrack is designed to work with all Atari ST series computers. This includes the ST-e. Tripletrack also works with (get this) the Atari 400-1200 series, the Amiga series, and the Commodore 64/128 computers. As you can see, maybe the name should be the Quadruple Track instead. A small switch on the right side of the box sets which type of computer the trackball will use.

Design: As I mentioned before, the Tripletrack has three buttons instead of two. The reason is that the two outside buttons function like the right hand mouse button on a regular mouse. This is very nice for us lefties.

The box itself is less than two inches tall, six inches long, and 4 inches wide. The ball itself is about two inches in diameter, and is placed in the center of a three tier box. The top tier has two special function keys, the middle tier contains the track ball, and the bottom tier, the one closest to you, holds the three mouse buttons. Kraft calls this "ergonomically designed". I guess that is the trackball equivalent of Farfegnugen.

Special

Functions: This is what separates this Trackball from a regular run-of-the-mill mouse:

1. Joystick Emulation: The Tripletrack can be used like a joystick! No more need for another set of wires hanging out of your ST. The Tripletrack can be used as a joystick. All you have to do is select position 3 on the computer select switch, and you have a joystick instead of a

mouse. In this mode, the left and right buttons act as fire buttons, and the middle button is disabled. (Again, a nice benefit for the left handed in the crowd.) And you do not have to turn off your computer to switch modes! A nice touch.

While in joystick emulation, the other function key, (mode key) can be set for Autofire, so that when you fire your gun or whatever, you REALLY fire! The Autofire allows automatic continuous firing. You do not have to hold a button down or repeatedly press a button to get a burst of fire that should wipe out even the vilest of enemies. When you are not in joystick emulation, just switch the mode switch to "D". This allows the mouse to drag items, just like normal.

2. Locking Button: This allows you to lock on a drag, and the drag stays on as long as the button is depressed. In Joystick mode, this button allows for continuous autofire. To deactivate the continuous autofire or drag, just depress the button. Now you have single shot activated. Either way, this is an excellent option.
3. Optional Footpedal: The Tripletrack has an optional footpedal that performs the same functions as the right and left mouse keys. The footpedal plugs into the top side of the Tripletrack and allows for some interesting control of programs. Feet and hands!(This option does NOT come with the Tripletrack, but can be purchased separately.)

Personally, I think this is a pretty impressive list of options that the Tripletrack comes with. However, you probably are asking yourself how well the darn thing works. Well, I like it! I must admit, using a regular mouse for 4 years has gotten my hand used to using my index finger to do all the work. With the Tripletrack however, the design makes use of your index, middle and fourth digits to move the trackball. Your thumb and little finger are the ones that depress the buttons. This feels a little clumsy at first, simply because you are accustomed to doing something else. However, with a little practice(about a half hour) you will feel just fine about the digit switch. The cursor movement is exceptionally smooth, and with the various mouse accelerators around, the darn thing literally flies across the screen. Response is the best I have EVER seen. And I have gone through my fair share of mice (mouses?) in my four years of ST computing.

Why buy the Kraft Tripletrack? Well, if you are like me, you ran out and bought the Practical Solutions Cordless Mouse as soon as it came out, and quickly went through about \$50 in batteries. No such problem with the Tripletrack. It is just like a regular mouse, and plugs directly into the first joystick port. While the Atari mouse is functional, it doesn't look nice. Tripletrack looks a lot better than the Atari mouse. The options mentioned previously make this an excellent buy, and Kraft has included a nice cloth cover with the Tripletrack to keep the dust and dog

hairs out while you aren't using it. Even the cover matches your ST's color! Kraft includes a FIVE YEAR WARRANTY! That's a pretty long time, and if you think about it, that warranty will probably outlast your computer. Top that off with a \$3.00 rebate, and Kraft has a definite winner.

One last thought: For whatever reason, Kraft does not appear to be actively advertising this excellent product in the Atari arena. Perhaps they are trying to get the Amiga market, or are just waiting to see how word of mouth works. (Or maybe their advertising executive is an ex-Atari advertising executive!) For this reason, your dealer may not know about the Tripletrack as a product for the ST. Let them know! And if you purchase this product, make sure you send the registration card and let KRAFT know you are an ST user. (There is a small comment area on the card, but no place asking computer type.)

The Kraft Tripletrack trackball for the Atari ST is a definite MUST HAVE for any serious ST user!

The Kraft Tripletrack
Trackball for the Atari ST
Kraft Systems Inc.
Retail price: 79.95

FOR MORE INFORMATION:

Kraft Systems, Inc.
450 W. California Ave.
Vista, CA., 92083
1-619-724-7146

ARTICLE WRITTEN BY:

Tim Holt
President: Atari ST Club of EL Paso
10953 Yogi Berra
El Paso, Texas 79934

Any and all parts of this article may be reproduced as long as credit is given to the author and the Atari ST Club of El Paso. Kraft, Atari ST, Tripletrack and any other registered trademarks are those of the company involved.

> STReport CONFIDENTIALâ €
=====

"ATARI NEWS ALWAYS FIRST!"

- London, UK

US DEVELOPERS TO ATTEND UK COMPUTER FAIRE

Traveling for the holidays? If you find yourself in London, England

on Jan. 4-6, be sure to stop at the 3rd Annual 16Bit Computer Faire at the Novotel in Hammersmith!

Several US developers will be traveling to this ST and Amiga show, which boasted over 25,000 attendees and over 100 exhibitors last show. These include Soft-Logik Publishing, Double Click Software and Unicorn Publications, producers of Atari Interface magazine. Best Electronics and SLICWare may be exhibiting as well.

"The great guys (Mike and Gilbert) at Double Click will be sharing a booth with us at the London show," said Pattie Rayl, managing editor for Atari Interface. "This will be a big splash for both our companies, since neither of our products are currently distributed outside the US and Canada. This will be the first time that people in Europe will see Atari Interface, but after the show, they should be able to find it in news-stands all over. The magazine soon will be distributed world-wide!"

Those wishing to obtain more information about the show can contact:

Gordon Monnier at (313) 673-5455
or
Westminster Exhibitions at 011-44-81-549-3444.

- Hopkins MN

IMAGE SYSTEMS HAS THE "GOODS!"

Here are some specs on some of the things I have worked on.

Moniterm Viking Atari. 19 B/W Screen 1280*960 pixels.

Requires TOS1.4 and a Mega2 or 4.

Price	and	availability	contact	Moniterm.
-------	-----	--------------	---------	-----------

Image Systems ISAC card. 1024*768 16 colour from 4096.

Also operates in "high res" DuoChrome.

Requires TOS1.4 and Mega2 or 4.

Optional kit operates card in 800*600 mode for slower colour monitors.

List \$800.00 Special Developer price available!

Dealers needed! Driver software is considered more mature and works with more programs.

Image Systems M24L "Max" Greyscale monitor. 1024*768 to 2048*1536

Dynamic Multisweep. Large 24 Inch viewing area. This keeps DPI correct vrs Atari Mono unlike Moniterm 19". Very bright display.

Includes tilt rotate base. Solid metal chassis.

NOT CHEAP JUNKY PLASTIC. Works with TT and with Viking Atari card.

List \$1995. Genie users 1295.00 Dealers needed!

Oh one last comment about the display cards for both Moniterm & Images, installation does NOT require soldering cutting etc. They are plug and play cards that snap into your Mega Expansion bus. If you want to contact Image Systems call 800-IMAGES-0 If you want to contact Moniterm call (612) 935-4151.

> CHRISTMAS IS COMING! STR InfoFileâ €
=====

.....Santa's Helpers

PRODUCT SOURCES FOR CHRISTMAS SHOPPERS 1990
=====

ABCO Computer Electronics
P.O. Box 6672
Jacksonville, FL. 32221
(800) 562-4037
Hard Disks & Supplies

Gribnif Software
P.O. Box 350
Hadley, MA 01035
(413) 584-7887
NeoDesk & Turbo C

A & D Software
226 NW 'F' Street
Grants Pass, OR 97526
(503) 476-0071
Universal Item Selector

ISD Marketing Inc.
2651 John St., Unit #3
Markham, Ontario, CA *L3R 2W5
(416) 479-1880
Calamus, DynaCadd etc...

Alpha Systems
1012 Skyland
Macedonia, OH 44056
(216) 467-5665
16 and 8 bit Support

L & Y Computers
13644c Jefferson Davis H'wy.
Woodbridge, Va. 22191
(703) 494-3444
Atari products and Software

B&C ComputerVisions
3257 Kifer Road
Santa Clara, CA 95051
(408) 749-1003
Atari Products & Supplies

Mars Merchandising
1041b St. Charles Rd.
Lombard Il.
(817) 589-2950
Atari Products & Accs.

Branch Always Software
14150 N.E. 20th St.
Bellevue, WA 98007
(206) 643-9697
Quick ST, Software

Lantech
PO Box R
Billerica, MA 01821
(508) 667-9191
10 Megabit Local Area Network

Best Electronics
2021 The Alameda Suite 290
San Jose, CA 95126
(408) 243-6950
THE Atari parts source & Supplies

Migraph Inc.
200 S. 333rd St.
Federal Way, WA 98003
(206) 838-4677
Top Notch Graphical Products

Carter Graphics & Computers
914 W. Sunset Blvd.
St. George, UT 84770
(801) 628-6111
Atari Products

Practical Solutions Inc.
1135 N. Jones Blvd.
Tucson, AZ 85716
(602) 322-6100
Atari support products

CodeHead Software
P.O. Box 74090
Los Angeles, CA 90004

Prospero Software
100 Commercial St.
Suite 306 Portland, ME 04101

(213) 386-5735
Software Products "Codekeys"

Comput-Ability
P.O. Box 17882
Milwaukee, WI 53217
(414) 357-8181
Atari Products & Distributor

CompuServe Information Service
(614) 457-0802

Online Services

Debonair Software
P.O. Box 521166
Salt Lake City, UT 84152
EL CAL The Math Machine
Atari Support Products

D & P Computer
P.O. Box 811
Elyria, Ohio 44036
(800) 535-4290
Atari Support Products

Double Click Software
P.O. Box 741206
Houston, TX 77274
(712) 977-6520
Software Developer

Fast Technology
P.O. Box 578
Amdover, MA 01810
(508) 475-3810
16Mhz 68000 Accelerator

Gadgets by Small
40 W. Littleton Blvd.
#210-211, Littleton, CO 80120
(303) 791-6098
Spectre GCR MAC Emulator

Goldleaf Publishing, Inc.
700 Larkspur Landing Circle,
Suite 199 Larkspur, CA 94939
(415) 461-5703
WordFlair Document Processor

(207) 874-0382
Software Products

Rio Datel Computers
3430 E. Tropicana Ave., #65
Las Vegas, NE 89121
(800) 782-9110
International Products

San Jose Computers
640 Blossom Hill Road
San Jose, CA 95123
(408) 224-8575
Atari Products

Sideline Software
840 NW 57th Court
Fort Lauderdale, FL 33309
(305) 771-9035
International Software Source

SofTrek
P.O. Box 5257
Winter Park, FL 32793
(407) 657-4611
TurboST "The Software Blitter"

ST Informer
909 NW Starlite Place
Grants Pass OR 97526
(503) 476-0071
Monthly Newspaper

Talon Technology
243 N. Hwy. 101, Ste 11
Solana Beach, CA 92075
(619) 792-6511
Supercharger IBM Emulator

Toad Computers
556 Baltimore Annapolis Blvd.
Severna Park, MD 21146
(301) 544-6943
Mass Storage devices & Atari Prod.

WuzTEK Omnimon Peripherals
One Technology Dr. Bldg. 1E, #301
Irvine, CA 92718
(714) 753-9253
Atari support products

=====

NEW LOW PRICES! & MORE MODELS!!

=====

HOLIDAY SPECIALS!

** EFFECTIVE IMMEDIATELY **

ABCO COMPUTER ELECTRONICS INC.

P.O. Box 6672 Jacksonville, Florida 32236-6672

Est. 1985

Voice: 904-783-3319 10 AM - 4 PM EDT

BBS: 904-786-4176 12-24-96 HST

FAX: 904-783-3319 12 PM - 6 AM EDT

HARD DISK SYSTEMS TO FIT EVERY BUDGET

All systems are complete and ready to use, included at NO EXTRA COST
are clock/calendar and cooling blower(s).

-ALL ABCO HARD DISK SYSTEMS ARE FULLY EXPANDABLE-

(you are NOT limited to two drives ONLY!)

(all cables and connectors installed)

* ICD HOST ADAPTERS USED EXCLUSIVELY * OMTI HIGH SPEED CONTROLLERS *

* ICD ADVANTAGE+ HOST ADAPTERS * FULL SCSI COMMAND SET SUPPORTED *

* SCSI EMBEDDED CONTROLLER MECHANISMS *

Model	Conventional Shoe Box				Price
	Description	Autopark			
SGN4951	51Mb 28ms	3.5"	Y	519.00	
SGN6177	62Mb 24ms	3.5"	Y	619.00	
SGN1096	85Mb 24ms	3.5"	Y	649.00	
SGN6277	120Mb 24ms	3.5"	Y	889.00	
SGN1296	168Mb 24ms	3.5"	Y	1069.00	
SGN4077	230Mb 24ms	3.5"	Y	1669.00	

=====

WE HAVE A COMPLETE LINE OF 3.5 LOW PROFILE HARD DRIVES
for

USE IN MEGA ST COMPUTERS AND RELATED CONFIGURATIONS.

20mb #AI020SC	379.95	30mb #AI030SC	419.95
50mb #AI050SC	449.95	65mb #AI065SC	499.95
	85mb #AI085SC	\$559.95	

MEGA ST Internal Hard Drives

CONNOR HIGH PERFORMANCE MECHANISMS

>>> ALL ABCO DRIVES ARE HIGH SPEED UNITS <<<

(500 - 600k per sec @ 23 -33ms)

CALL FOR SUPER SAVINGS ON ALL OUR OTHER CUSTOM UNITS

FROM 30mb 28MS @ \$419.00!

Ask about our "REBATE SPECIALS"

---=*---

SHIPPING AND INSURANCE INCLUDED IN COMPLETE UNIT PRICE!

=====

* SYQUEST 44MB (#555)>> ABCO "44" << REMOVABLE MEDIA DRIVE *

- SYQUEST 44 MB DRIVE
 - ICD Utility Software
 - Fan & Clock
 - ICD ST ADVANTAGE PLUS H/A
 - 3' DMA Cable
 - Multi-Unit Power Supply
- (1) 44 MB Syquest Cart.

COMPLETELY ASSEMBLED AND READY TO RUN!

--->> SPECIAL NOW ONLY __\$719.00__ <<---

*** SPECIAL SYQUEST OFFER!! ***

ORDER YOUR CUSTOM SYQUEST UNIT NOW AND GET A SECOND COMPLETE UNIT!

***** for \$50.00 LESS! *****

* TWIN SYQUEST 44MB REMOVABLE MEDIA DRIVES ... PROGRAMMER'S DELIGHT *
SPECIALLY PRICED ** \$1329.00 **

* SYQUEST 44MB REMOVABLE MEDIA DRIVE AND HARD DRIVE COMBINATIONS *

- Syquest 44 Model [555] and the following hard drives -
- 50mb SQG51 \$1039.00 30mb SQG38 \$1019.00
- 65mb SQG09 \$1109.00 85mb SQG96 \$1119.00

LOWBOY - STANDARD - DUAL BLOWER CABINETS

CUSTOM CONFIGURATIONS AVAILABLE

Listed above are a sampling of the systems available.

Prices also reflect various cabinet/power supply configurations
(over sixty configurations are available, flexibility is unlimited)

*** ALL Units: Average Access Time: 24ms - 34ms ***

ALL UNITS COMPATIBLE WITH --> SUPERCHARGER - AT/PC SPEED - SPECTRE/GCR
LARGER units are available - (special order only)

>> NO REPACKS OR REFURBS USED! <<

- Custom Walnut WOODEN Cabinets - TOWER - AT - XT Cabinets -

* SLM 804 Replacement Toner Cartridge Kits \$46.95 *

Replacement Drums; CALL

Keyboard Custom Cables Call for Info

ALL POWER SUPPLIES UL APPROVED

-* 12 month FULL Guarantee *-

(A FULL YEAR of COVERAGE)

QUANTITY & USERGROUP DISCOUNTS AVAILABLE!

DEALERS and DISTRIBUTORS WANTED!

please, call for details

Personal and Company Checks are accepted.

ORDER YOUR NEW UNIT TODAY!

CALL: 1-800-562-4037 -==*- CALL: 1-904-783-3319
Customer Orders ONLY Customer Service
9am - 8pm EDT
Tues thru Sat

> A "Quotable Quote"â ¢
=====

"TIS THE SEASON TO BE JOLLY..."

...KRIS KRINGLE

Please, take a moment to remember the boys on the U.S.S. Arizona.

STReport Online Magazineâ ¢

Available through more than 10,000 Private BBS systems WorldWide!

STReportâ ¢	"YOUR INDEPENDENT NEWS SOURCE"	December 07, 1990
16/32bit Magazine	copyright ' ' 1990	No.6.49

Views, Opinions and Articles Presented herein are not necessarily those of the editors, staff, STReportâ ¢ CPU/STRâ ¢ or ST Reportâ ¢ . Permission t

O

reprint articles is hereby granted, unless otherwise noted. Each reprint must include the name of the publication, date, issue # and the author's name. The entire publication and/or portions therein may not be edited in any way without prior written permission. The contents, at the time of publication, are believed to be reasonably accurate. The editors, contributors and/or staff are not responsible for either the use/misuse of information contained herein or the results obtained therefrom.
